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18. (New) The composition according to Claim 7, wherein a chemoattractant for said insect or arachnid is associated with said solid support.

REMARKS

The Claimed Invention

The claimed invention is directed to a method for killing an insect or arachnid population comprising contacting the insect or arachnid population with a formulation comprising 0.1 g/l to 25 g/l of one or more compounds of formula (2). The invention is further directed to a soap or detergent compositions comprising a growth modulating amount of one or more compounds of formula (2) to provide a kill of about 70% or greater of a target pest. Also provided are compositions suitable for use as bait for a pest which comprise one or more compounds of formula (2).

Reissue applications will be acted on by the Examiner in advance of other applications.

37 CFR 1.176 provides that reissue applications will be acted on by the Examiner in advance of other applications, i.e., special.... MPEP 1441. For the record, the following is the chronology for action items in this application.

1/24/97: Application for reissue filed

1/25/99: First Office Communication.

2/26/99: Applicants' Response to First Office Communication

9/24/99: Second Office Communication.

10/25/99: Applicants' Response to second Office Communication.

11/27/00: First Office Action.

Applicants note for the record that the Examiner is not following the mandate of 37 CFR 1.176 in treating this application as special and request that going forward he follow the timetable for a special application. The Examiner's attention is respectfully directed to MPEP 708.02(c) and (d).

The Pending Claims

Prior to entry of the above amendments, Claims 1-17 are pending. Claims 1-6 are directed to a method for controlling a pest population. Claims 8-11 are directed to compositions suitable for use as a shampoo or soap. Claims 7, 12-17 are directed to compositions suitable for use as bait for a pest.

The Office Action:

Claims 1-6 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 54, 56-62 of copending Application No. 07/479,623.

Claims 1-6 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 8, 25, 29-39, 41, 57-61, 66-69, 71-75, 77-86 of copending Application No. 08/860,514.

Claims 1-6 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-7, 14-16, 29-33 of copending Application No. 08/860,499.

Claims 1-5, 7-11 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3, 5, 8, 10, 14-23, and 29 of copending Application No. 08/366973.

Claims 1-6 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1, 2, 5-10, 12-14, 16, 17, and 19-22 of copending Application No. 09/431542.

Claims 1-16 stand rejected under the judicially created doctrine of obviousness-type of U.S. Patent No. 5,676,958.

Claim 7 stands rejected under the judicially created doctrine of obviousness-type of U.S. Patent No. 5,792,467.

Claims 1-7, 12, 13, 14, 15 stand rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-8 of prior U.S. Patent 5,792,467.

Claims 7, 12-16 stand rejected under 35 U.S.C. § 112, ¶1 based on an excluded species not so supported in the specification.

Claims 7, 12-16 stand rejected under 35 U.S.C. § 112, ¶1 based on an exclusion of

cinnamaldehyde and antioxidant not so supported in the specification.

Claims 1-6, 15, 16 stand rejected under 35 U.S.C. § 112, ¶1

Claims 1, 2, 5-8, and 12-16 stand rejected under 35 U.S.C. § 112, ¶2.

Claims 1-7, 13, 15 and 16 stand rejected under 35 U.S.C. § 112, ¶2.

Claims 7, 12-16 stand rejected under 35 U.S.C. § 102(b) as anticipated by Howell *et al.*,
USP 5102675.

Claims 8-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Armstrong *et al.*,
USP 5149715

Claims 8-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Brekhman *et al.*,
USP 4808574.

Claims 1-5, 8-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Miyauaki *et al.*, JP 01261303.

Claims 1-6, 8-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Ando JP
266809.

Claims 1, 3, 5, 7, 12-16 stand rejected under 102(b) as anticipated by Metcalf *et al.*, '89.

Claims 1-5, 8-11 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over
Saotome- FR 2529755.

Claims 1-5, 7-14 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Dorman
et al., USP 2465854.

Claims 8-11 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Lintz *et al.*,
USP 450370.

Claims 8-11 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Rambut *et al.*,
USP 74940.

Claims 8-11 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Heisler *et al.*,
USP 75161.

Claims 1-5, 8-11 stand rejected under 35 U.S.C. § 102(b) as unpatentable over Turney *et al.*, USP 52345.

Claims 8-11 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Heisler in
view of Artander.

Amendments:

Claim 1 has been amended to change "controlling" to --killing--. Support for this language can be found in the originally submitted Claims 4 and 8.

Claim 5 has been amended to delete the redundant limitation and to instead recite that the formulation further comprises a salt of a polyprotic acid. Support for this language can be found at col. 2, l. 57 to col. 3, l. 1 and col. 3, l. 36-37 in the cut-up version of the specification submitted February 26, 1999.

Claim 7 has been amended by replacing the phrase "associated with" with the phrase "wherein said composition is coupled to a solid support or encapsulated." Support for this amendment can be found at col. 3, l. 48.

Claim 13 and 14 has been amended to replace "A" with --The-- to correctly designate that these claims are dependent upon the base Claim 12.

Claim 15 has been cancelled and replaced with new Claim 18 with the wording of the original patented Claim 15. Note that in the Application as submitted on November 24, 1997 the text of Claims 15 and 16 was incorrectly identical. As can be seen by comparison with the issued Claims in the '501 patent, Claims 15 and 16 in the Supplemental paper to Reissue Application are correct and are different. New Claim 18 corrects this typographical error and reflects the text of Claim 15 as submitted in the Supplemental paper.

RESPONSE TO THE REJECTIONS

In the response that follows, the Examiner's individual objections and rejections are provided in full text, as identified by indented small bold print, followed by Applicants response.

First Provisional Obviousness-Type Double Patenting Rejection (over USSN 08/479,623)

Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 54, 56-62 of copending Application No. 08/479623. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are obvious over the application methods of 07/479623, since the same compounds are applied at the same rate with the same effect.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to the provisional double patenting rejection of Claims 1-6

of copending Application No. 07/479623 until there is an indication of otherwise allowable subject matter.

Second Provisional Obviousness-Type Double Patenting Rejection (over USSN 08/860,514)

Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8, 25, 29-39, 41, 57-61, 66-69, 71-75, 77-86 of copending Application No. 08/860,514. Although the conflicting claims are not identical, they are not patentably distinct from each other because encompasses the instant invention as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to the provisional double patenting rejection of Claims 1-6 of copending Application No. 08/860,514 until there is an indication of otherwise allowable subject matter.

Third Provisional Obviousness-Type Double Patenting Rejection (over USSN 08/860,499)

Claims 1-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 14-16, 29-33 of copending Application No. 08/860499. Although the conflicting claims are not identical, they are not patentably distinct from each other because encompasses the instant invention as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to the provisional double patenting rejection of Claims 1-6 of copending Application No. 08/860499 until there is an indication of otherwise allowable subject matter.

Fourth Provisional Obviousness-Type Double Patenting Rejection (over USSN 08/366,973)

Claims 1-5, 7-11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5, 8, 10, 14-23, 29, are of copending Application No. 08/366973. Although the conflicting claims are not identical, they are not patentably distinct from each other because 366973 encompasses the instant invention as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to the provisional double patenting rejection of Claims 1-6 of copending Application No. 08/366973 until there is an indication of otherwise allowable subject matter.

Fifth Provisional Obviousness-Type Double Patenting Rejection (over USSN 09/431,542)

Claims 1-6 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-10, 12-14, 16, 17, 19-22 are of copending Application No. 09/431542. Although the conflicting claims are not identical, they are not patentably distinct from each other because 431542 encompasses the instant invention as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants defer responding to the provisional double patenting rejection of Claims 1-6 of copending Application No. 09/431542 until there is an indication of otherwise allowable subject matter.

First Judicially Created Obviousness-Type Double Patenting Rejection (over USPN 5,676,958)

Claims 1-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 5676958. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent encompasses the application.

This rejection is avoided by submission of the attached terminal disclaimer.

Second Judicially Created Obviousness-Type Double Patenting Rejection (over USPN 5,792,467)

Claim 7 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5792467. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant composition is claimed, no patentable weight given to further intended use but it is associated with solid supports polymers, skin, storage containers.

This rejection is respectfully traversed because Claim 7 is directed to a composition bound to a solid support, whereas Claims 1-8 of the '467 patent are directed to compositions comprising alpha-hexyl cinnamic aldehyde and one or more stabilizing agent which alters the evaporation rate of the alpha-hexyl cinnamic aldehyde. Such a composition does not render obvious an immobilized composition, rather it teaches away, since in the one case the composition is bound and as in the other is required to evaporate. Accordingly, Applicants respectfully request that this rejection of Claim 7 be withdrawn.

First 35 U.S.C. § 112, ¶1 Rejection

Claims 7, and 12-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make and/or use the invention. These rejections (sic) are to claim (7) (sic) an excluded species not so supported in the specification; applicants is attempting to exclude the preferred compound-instead, identify desired compounds in consisting of" format.

The Examiner has issued both an obviousness type double patenting rejection and a 35 U.S.C. § 101 rejection over USPN 5,676,958. The '968 patent is a CIP of the instant application. The bulk of the '958 patent specification is the same as that of the instant specification. A U.S. Patent is deemed enabling for that which is claimed. The claimed subject matter in the '958 application is therefore enabled by the '958 application, the subject matter that the Examiner has stated is the same as or an obvious variation of that which is claimed in the instant application. Therefore the instant application is enabling for that which is claimed. Accordingly, the Applicants respectfully request that this rejection of Claims 7 and 12-16 under 35 U.S.C. § 112, ¶1 be withdrawn.

Second 35 U.S.C. § 112, ¶1 Rejection

Claims 1, 2, 5-8, 12-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not contain enough exemplary matter to support broad term: "an organic substituent containing from 1 to 10 carbon atoms (each occurrence). Only specific compounds, not the generic formulae have been shown effective to meet the claim language, and only for specific concentrations, formulation, application methods, and pests. These should clearly be claimed in order for one in the art to be able to practice this invention without undue experimentation.

The Applicants respectfully traverse this rejection because the specification is enabling for the claimed invention.

The Applicants respectfully point to the MPEP that states

representative examples together with a statement applicable to the genus as a whole will ordinarily be sufficient if one skilled in the art (in view of the level of skill, state of the art and the information in the specification) would expect the claimed genus could be used in the manner without undue experimentation.
(Emphasis added, MPEP 2164.03).

That is, "[t]he law does not require a specification to be a blueprint in order to satisfy the

requirement for enablement under 35 USC 112, first paragraph.”¹ In other words, the Applicants are not required to demonstrate each and every permutation associated with the invention because such a requirement would fundamentally frustrate one of the primary purposes of the patent application process, namely to promote disclosure of inventions.

The Applicants have supplied six (6) representative examples that illustrate how to make and use the claimed invention by employing readily available compounds (i.e., cinnamic aldehyde or coniferyl aldehyde) described in formula (2) to be used against various insect or arachnid populations. (See specification p. 9, l. 27 to p. 13, l. 1). The Applicants have explicitly described that the preferred formulation as shown in formula (2) contains R₂ derivatives that may contain 1 to 10 carbon atoms carbon atoms. (See specification at p. 4 ll. 13-24; p. 14, ll. 5-10; p. 14, l. 20 to p. 15, l. 4; p. 15, ll. 9-12; p. 15, l. 17 to p. 16, l. 4; p. 16, ll. 11 – 16; p. 17, ll. 2-6; and p. 17 l. 17 to p. 18, l. 4). Furthermore, beyond providing exemplification of how to make and use the present invention in Examples 1 to 6, the Applicants explicitly disclose that the person skilled in the art of controlling pest populations will be required to empirically determine the best results in light of (1) the way the product is applied, (2) the degree of infestation, (3) the formulation, and (4) the specific compound used during the application. Such determination is well within the skill of the person skilled in the art. That is, the Applicants note in the specification that

[t]he amount of natural product that is provided, either applied to organic matter colonized by the target pest or as bait, will depend upon the degree of infestation of the area and to some extent upon the formulation and the specific compounding used and therefore *must be empirically determined for best results*. (Emphasis added, see specification p. 4, ll. 2-6).

Therefore, the Applicants have met all of the requirements laid out by the MPEP to claim a genus by setting out representative examples of how to make and use the present invention coupled with numerous statements that the present invention is intended to be applicable to the genus as a whole. Therefore, one skilled in the art of killing pest populations can expect to use members of the claimed genus in a manner as outlined in the specification without resorting to undue experimentation.

In addition, the Examiner has issued both an obviousness type double patenting rejection

¹ *Staehelin v. Sechner*, 24 USPQ 2d 1513, 1516 (B.P.A.I 1992) citing *In re Gay*, 309 F.2d 769, 135 USPQ 311(C.C.P.A. 1962)).

and a 35 U.S.C. § 101 rejection over USPN 5,676,958. The '968 patent is a CIP of the instant application. The bulk of the '958 patent specification is the same as that of the instant specification. A U.S. Patent is deemed enabling for that which is claimed. The claimed subject matter in the '958 application is therefore enabled by the '958 application, the subject matter that the Examiner has stated is the same as or an obvious variation of that which is claimed in the instant application. Therefore the instant application is enabling for that which is claimed. Accordingly, the Applicants respectfully request that this rejection of Claims 1, 2, 5-8 and 12-16 under 35 U.S.C. § 112, ¶1 be withdrawn.

Third 35 U.S.C. § 112, ¶1 Rejection

Claims 7, 12-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The exclusion of cinnamic aldehyde, and antioxidant, are not supported in the specification.

This rejection has been avoided by amendment of Claim 7 by removing the negative limitation in the claimed invention. Therefore, the Applicant respectfully request that this rejection of Claims 7, 12-16 be withdrawn.

Fourth 35 U.S.C. § 112, ¶1 Rejection

Claims 1-6, 15, 16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims are beyond the scope of the specification, no results of exposure to cinnamic or coniferyl aldehyde, the only tested compounds, at 10-2000 ppm, is shown; there is no assurance of efficacy as claimed, there are no explanation of how the cinnamic aldehyde, dissolved in water, can be effective - the compound is water insoluble. Neither are baits shown - there is no enabling disclosure showing capability of attraction, to a housing, of a cinnamic or other aldehyde on a solid support, methods for cockroaches are shown to require direct contact, thus, should be so claimed.

The Applicants respectfully traverse this rejection because the specification is enabling for the claimed invention.

The Examiner has issued both an obviousness type double patenting rejection and a 35 U.S.C. § 101 rejection over USPN 5,676,958. The '968 patent is a CIP of the instant application. The bulk of the '958 patent specification is the same as that of the instant specification. A U.S. Patent is deemed enabling for that which is claimed. The claimed subject matter in the '958 application is therefore enabled by the '958 application, the subject matter that the Examiner has

stated is the same as or an obvious variation of that which is claimed in the instant application. Therefore the instant application is enabling for that which is claimed. Accordingly, the Applicants respectfully request that this rejection of Claims 1,-6, 15 and 16 under 35 U.S.C. § 112, ¶1 be withdrawn.

35 U.S.C. § 112, ¶2 Rejection

Claims 1-7, 13, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no "said insect-" in claim 1 preamble. Claim 5 does not further limit claim 1. Claim 7 is indefinite as to applicant's intended use of "associated with" and "solid" Examiner fails to see any difference between claims 15 and 16.

The Applicants respectfully traverse this rejection or avoid it by claim amendment as follows.

Regarding Claim 1, the Claim as filed recites "insect or arachnid" in the preamble. While a typographical error occurred in amendment submitted in February 26, 1999, so that the Claim did read pest, the term "insect" was not deleted nor "pest" added (no [] or underlining was used).

Regarding Claim 5, this claim have been amended to delete the redundant limitation.

Regarding Claim 7, this claim has been subsequently amended by deleting the phrase "associated with" and adding the phrase "wherein said composition is bound to" more clearly describe the present invention.

Regarding Claims 15 and 16, the Applicants respectfully note that the Examiner appears to be referring the Claims as originally submitted November 24, 1997 and is not referring to the Supplemental Paper to Reissue Application submitted October 25, 1999 There was a typographical error in the Application as submitted on November 24, 1997. As can be seen by comparison with the issued Claims in the '501 patent, Claims 15 and 16 in the Supplemental paper to Reissue Application are correct and are different. Claim 15 has been cancelled and rewritten as new Claim 18 to correct this typographical error.

Therefore, this rejection of Claims 1-7, 13, 15 and 16 under 35 U.S.C. § 112, ¶1 should be withdrawn.

35 U.S.C. § 101 Rejection

Claims 1-7, 12, 13, 14, 15 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-8 of prior U.S. Patent No. 5,676,958. This is a double patenting rejection.

The Applicants respectfully traverse this rejection because the rejected claims are not the same as those in the '958 patent.

Independent Claims 7 recites an insect or an arachnid as the target pest, whereas the claims of the '958 patent recite the broader target of simply "pest". Claim 6 of the '958 patent is directed to an aqueous composition whereas the compositions in the instant case are directed to an immobilized composition coupled to a solid support or encapsulated. Therefore, there is no identity between the claims of the instant application and those of the '958 patent. Therefore this rejection of Claims 1-7, 12-15 under 35 U.S.C. § 101 should be withdrawn.

First 35 U.S.C. § 102(b) Rejection

Claims 7, 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Howell et al. 5102675. Coniferyl aldehyde is shown in an aqueous composition, associated with a solid support, of cellulose, (Oak col. 2, lines 32-37), In containers (col. 8). No patentable weight is given to the future intended use.

This rejection has been avoided by amendment of Claim 7 , from which the other rejected claims ultimately depend, to recite that the composition is coupled to a solid support or encapsulated. Such a composition is not taught by Howell. Therefore, this rejection should be withdrawn.

Second 35 U.S.C. § 102(b) Rejection

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong 5149715 . . . At Armstrong: Instant aldehydes (col. 3), cinnamic, are applied to crop substrate at 1-200 ppm or higher (col. 3, top) as an emulsion with detergent Tween 80 (lines 49-65) with or without antioxidants (col. 5, top) Example 1 shows 1000 ppm cinnamon oil (90% cinnamaldhyde col. 5, lines 22-24). This is within the range of the instant concentrations disclosed as providing 70% or greater kill. No patentable weight is given to future intended use of the composition these are inherent properties.

The Applicants respectfully traverse this rejection because the claimed invention specifically recites a soap or detergent formulation, not taught by Armstrong. Such a formulation could not be applied to mushrooms. The Tween 80 used by Armstrong is a surfactant, and is not

present in the kind of concentration that would qualify as a detergent or it would irreversibly damage the mushrooms. Accordingly, this rejection should be withdrawn.

Third 35 U.S.C. § 102(b) Rejection

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by . . .Brekhamm. ...Brekhamm (sic): The instant flavonoid and aromatic aldehydes at the concentration as shown to effect the claimed control is shown; thus, as above, the instant composition (see Col. 2, 3).

This rejection is respectfully traversed because Claims 8-11 are directed to a soap or detergent formulation, whereas Brekhman discloses a non toxic composition that can be used to inhibit the development of a pathological addition to alcohol. A soap or detergent formulation would be toxic. Therefore, the Brekhman composition teaches away from the instant compositions. Accordingly, this rejection should be withdrawn.

Fourth 35 U.S.C. § 102(b) Rejection

Claims 1-5, 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyadaki et al. JP 01261303. Cinnamic aldehyde (p. 3), with carrier, (p. 4, 5) in detergent compositions, with or without antioxidants, at 0.1-30% (p. 6), application and solid support or as liquid, if desired, placed in a chamber into which thrips can be entered or removed (p. 7, fig. 1) and provides potent control - death of 82% (p. 8, table).

This rejection is respectfully traversed because Miyawaki does not teach each and every limitation of the claimed invention.

Miyawaki discloses a method for repelling various organisms of the Thrip class, whereas the claimed method (Claims 1-5 as amended) is a method for killing an insect or arachnid population. Since the Thrips in Miyawaki removed themselves from the vicinity of the cinnamic aldehyde, they were clearly not dead and therefore could not be said to have been killed. Rather they were repelled. The composition disclosed by Miyawaki includes cinnamic aldehyde and polypropylene glycol. The composition of Claim 8-11 is a soap or a detergent formulation not taught by Miyawaki. Therefore, this rejection should be withdrawn.

Fifth 35 U.S.C. § 102(b) Rejection

Claims 1-6, 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ando - JP 266809.

See Cockroach repellent effectiveness test 94% die (table 2) when cinnamic aldehyde compositions see "means of solving-problems" are applied to a solid surface and floor of a box into and out of which cockroaches go. Non-cinnamic aldehyde compounds were tested - they were less effective (hinoki).

This rejection is respectfully traversed because Ando discloses only a method for inhibiting mold growth and repelling cockroaches while Claims 1-6 (as amended) are directed to killing an insect or an arachnid population, not repelling it. The composition disclosed by Ando is simply a composition coating for flooring. There is no disclosure of a soap or detergent formulation, rather the Ando composition teaches away from such a soap or detergent composition, as it is a composition that contains a thinner. Therefore, this rejection should be withdrawn.

Sixth 35 U.S.C. § 102(b) Rejection

Claims 1, 3, 5, 7, 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Metcalf et al. '89. 100 mg in 1 liter cartons, of either cinnamic aldehyde, or a methoxy analog (an organic 1 c containing substituent), without antioxidant, controlled diabrotica (p. 1621). The solid support was the cotton dental with (cellulose) attached to paper (cellulose) many associations with cellulose binding domains the traps provide for egress and ingress.

This rejection is respectfully traversed because rather than a method of killing (Claims 1, 3, 5 as amended), Metcalf discloses a method for attracting various diabrotica beetles. The compositions disclosed by Metcalf are traps composed of cotton dental wicks attached to cylindrical paper cartons covered with insect adhesive with cinnamic aldehyde or 4-methylcinnamaldehyde adsorbed to the cotton dental wicks. (See Metcalf, p. 1621, col. 1, ll. 4-10). The claimed compositions are coupled to solid supports and encapsulated. Adsorption to a cotton dental wick is not the equivalent of coupling or encapsulating. Therefore, this rejection should be withdrawn.

Seventh 35 U.S.C. § 102(b) Rejection

Claims 1-5, 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Saotome - FR 2529755. 5-50% concentrates of the instant invention, as detergent compositions are presented - thus, would meet the composition requirements, inherently (p. 2, 3 translation) 100% kill resulted from only 100 ppm (Example 5, p. 18) - Clearly the concentrate would also kill 100%, had it been needed.

Saotome discloses a method for killing cultures of *Fusarium*, *corticium rolfsii* *phytophthora*, *P. capsici* and *Thizoctonia* using cinnamic aldehyde in water at concentrations

between 25-200 ppm. There is no disclosure relating to methods of killing insects and arachnids. Likewise, there is no disclosure of compounds of formula (2) coupled to a solid support or encapsulated (Claim 7, and claims dependent therefrom) or in a soap or detergent formulation (Claims 8-11).

Therefore, this rejection should be withdrawn.

Eighth First 35 U.S.C. § 102(b) Rejection

Claims 1-5, 7-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Dorman et al. - 2465854. 1-25% sprays of cinnamic aldehyde, absent anti oxidants, are applied to kill over 77% insects (flies, table), other of the instant compounds, free of cinnamic aldehyde (ie - amyl, table), Associated with solid supports - powders (col. 2, 3-cellulosic) are contemplated, as are detergent compositions (claim 2).

This rejection is respectfully traversed.

The only disclosure in Dorman relative to methods for killing insects, is that cinnamic aldehyde and amyl cinnamic aldehyde can be used to knock down or kill flies with 3% (30 g/l) cinnamic aldehyde or 5 % (50 g/l) amyl cinnamic aldehyde concentrations that far exceed the concentrations in the claimed methods. The compositions disclosed by Dorman are cinnamic aldehyde or amyl cinnamic aldehyde are in oil, such as a mineral oil or a light hydrocarbon oil. There is no disclosure of a compound coupled to a solid support or encapsulated in a soap or detergent formulation.

Therefore, this rejection should be withdrawn.

Ninth First 35 U.S.C. § 102(b) Rejection

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lintz - 450370. Lintz provides a soap (carbolic based) deodorizer composition of cinnamic aldehyde - a major component of oil of cinnamon at levels clearly able to kill 70% insects - No patentable weight given to future intended use or inherent effects.

This rejection is respectfully traversed because soaps are made by treating fats with alkali not acid. There is no disclosure of a soap in Lintz. Therefore, this rejection should be withdrawn.

Tenth 35 U.S.C. § 102(b) Rejection

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by ...Rambaut – 74940. ... provides a soap (carbolic based) deodorizer composition of cinnamic aldehyde - a major component of oil of cinnamon at levels clearly able to kill 70% insects - No patentable weight given to future intended use or inherent effects so does Rambaut, but at lower levels; 7 g/l, who provides cinnamic and style sidings; sources of cinnamaldehyde and comfrey aldehyde.

This rejection is respectfully traversed because there is no soap or detergent formulation disclosed by Rambaut. The formulation disclosed by Rambaut contains five gallons of alcohol, five gallons of Jamaica spirits and thirty five gallons of cologne spirits to 4 ounces of cinnamon (not even an aldehyde). Accordingly, this rejection should be withdrawn.

Eleventh 35 U.S.C. § 102(b) Rejection

Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by ... Heisler 75161.

This rejection is respectfully traversed because there is no soap or detergent formulation disclosed by this reference. Heisler, USP 75,161 discloses a composition containing buds of Black snake root, wild cherry bark, elecampane root, sarsaparilla root, pine tree gum, buds of balsam-tree in a half pint of alcohol and eight quarts of water. Therefore, this rejection should be withdrawn.

Twelfth 35 U.S.C. § 102(b) Rejection

Claims 1-5, 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tumey - 52345. Tumey shows insect control with cinnamic aldehyde - a known ingredient of cassia (quassia), with in the instant concentration, this providing instant effects.

Turney, USP 52,315, discloses an improved composition for destroying insects comprising tobacco, quassia-wood, copperas, sulphur, gum aloes and gas tar. The Applicants can find no composition in the Turney disclosure that would suggest cinnamic aldehyde. Therefore, the Applicants respectfully requires that the Examiner submit an affidavit along with supporting literature sources for the contention that that cinnamic aldehyde is a component of quassia.

This rejection is respectfully traversed because the extracted quassia wood contains terpenoid compounds not compounds according to formula (2) (See attached print out from the Columbia Encyclopedia, 6th ed.). Thus this reference is entirely irrelevant to the claimed invention. Therefore, this rejection should be withdrawn.

35 U.S.C. § 103(a) Rejection

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heisler in view of Arctander (sic). Heisler (above) provides cinnamic aldehyde compositions, oral. But the composition is a bitters. Arctander (sic) show confer aldehyde a known maple syrup component providing sweet - balsamic, Maple -like interesting flavorant/odorant.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize Heislars composition and motivated to provide acceptable application, to add coniferyl aldehyde in order to obtain sweet, maple like interesting flavor.


This rejection is respectfully traversed because, as discussed above, Heisler does not disclose a soap or detergent formulation. The further addition of Arctander does not cure this deficiency. Accordingly, this rejection should be withdrawn.

CONCLUSION

In view of the above amendment and remarks, it is submitted that this application is now ready for allowance. Early notice to that effect is solicited. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (650) 328-4400.

Respectfully submitted,

Dated: March 8, 2001



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The Columbia Encyclopedia, Sixth Edition. 2001.

quassia

(kwŏsh'ə) (**KEY**) , name for several tropical trees and for a bitter extract from their bark. The extract containing complex terpenoid compounds called quassinoids is used medicinally as a bitter tonic and a pinworm remedy; it is also used in insecticides, e.g., in flypaper and against aphids. Surinam quassia comes from the tree *Quassia amara* of N Brazil and surrounding regions; Jamaica quassia comes from *Picrasma excelsa* of the West Indies. Some Old World quassia species are similarly used. The trees are related to the ailanthus. Quassia is classified in the division *Magnoliophyta*, class *Magnoliopsida*, order *Sapindales*, family *Simaroubaceae*.

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